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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,029	03/31/2004	Jeff Craven	8156	4944
7590	09/08/2006		EXAMINER	
John Doughty ARRIS International, Inc. 3871 Lakefield Drive Suwanee, GA 30024			BELIVEAU, SCOTT E	
			ART UNIT	PAPER NUMBER
			2623	

DATE MAILED: 09/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/814,029	CRAVEN ET AL.	
	Examiner	Art Unit	
	Scott Beliveau	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 28 August 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-21 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 28 August 2006 have been fully considered but they are not persuasive with respect to claims 1-20.

With respect to applicant's arguments regarding the rejection of claims 1 and 11, applicants argue that the particular combination of Novak with common knowledge as supported by applicant's statement. In support of applicant's argument the particular statement in the specification which sets forth that 'a DOCSIS format translator 34 strips incoming messages of the DOCSIS format information, as known in the art' does not teach or suggestion the particular claimed limitation of 'extracting the content from the broadband format by stripping broadband protocol format information' as claimed since the DOCSIS protocol (provided but not particularly relied upon by the examiner) is interpreted as teaching that only data is encapsulated in the DOCSIS formatted messages as opposed to multimedia such as video. The examiner respectfully disagrees. The Novak et al. reference clearly and explicitly discloses that the particular network interface [302] is a DOCSIS compliant cable modem (Para. [0062]). The Novak et al. reference clearly discloses that ability to receive and distribute audio and video information or 'multimedia content' (ex. Para. [0051] and [0064]) formatted as distributed data. The particular distribution of TCP/IP data through DOCSIS clearly meets what is being claimed and is supported by applicant's interpretation of what is considered 'known in the art' as argued. Furthermore, as evidenced by Perlman (of record), the particular usage of DOCSIS to transmit other forms of 'multimedia' content such as

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MPEP encoded content was clearly within the skill in the art at the time the invention was made (ex. Figure 3). Accordingly, applicant's arguments are not deemed persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention with respect to claims 2, 3, 12, and 13, it is noted that the features upon which applicant relies (i.e., cable modems processing broadband-formatted video signal) are not recited in the rejected claim(s). The claim simply requires the usage of a cable modem and the usage of DOCSIS. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding applicant's arguments regarding the rejection of claims 17-19, the Novak et al. reference clearly teaches the particular application of DOCSIS which would include any 'features' of DOCSIS. The claim does not require any particular or specific 'features' (ex. QoS) argued nor does it even limit what is meant by 'improving the transport'. The claim merely requires the usage of a cable modem and the usage of DOCSIS. Clearly, if the application of DOCSIS didn't improve something related to the transport of information it would not be utilized. The usage of a standard is certainly an improvement in so far as it provides greater interoperability between vendors sending/receiving information. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's argument that the references fail to show certain features of applicant's invention with respect to claim 18, it is noted that the features upon which

applicant relies (i.e., assignment of different MIB values to different streams based on the bandwidth to be used for a particular stream in order to reduce jitter) are not recited in the rejected claim(s). The claim merely requires for a Dynamic Service Flow MIB to reduce jitter. Applicant's own arguments set forth that the particular usage of a DsX MIB in DOCSIS is common. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With respect to claim 19, applicant argues that it is known to use dynamic channel change ("DCC") at the CMTS, but APA does not disclose the use of DCC at the cable modem. The claim requires that that a DCC is applied at the 'broadband communication circuitry'. As is understood in the art, a DCC is not an isolated process, but is rather a cooperative process involving particular steps and operations being performed by both the CMTS and cable modem (ex. Kolze et al.: Para. [0015]). Accordingly, the particular usage of a 'DCC' at the CMTS is such that it is also 'applied' to the resulting cable modem in association with the CMTS instructing the particular cable modem to change to a new channel.

In response to applicant's argument that the references fail to show certain features of applicant's invention with respect to claim 6, it is noted that the features upon which applicant relies (i.e., MAC address of a processor that may be used to decode content messages from a CMTS) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With respect to applicant's arguments pertaining to the Perlman reference, it is respectfully noted that the particular embodiment noted and argued by applicant is not the one being relied upon in the rejection. In particular, Figure 2A illustrates an embodiment in which not all of the 'multimedia content' is sent using DOCSIS. While a number of the components are the same between embodiments, it is respectfully noted that the examiner is relying upon the embodiment shown in Figure 2C wherein all of the encoded 'multimedia content' is received DOCSIS formatted information and must subsequently be DOCSIS processed [292] prior to being MPEG decoded [270]. Applicant's arguments are not deemed persuasive.

2. Applicant's arguments with respect to new added claim 21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 21 is rejected under 35 U.S.C. 102(e) as being anticipated by St. John et al. (US Pub No. 2002/0095684 A1).

In consideration of claim 21, Figure 1 illustrates a "system for providing multimedia content" over a "network" [130]. As illustrated in Figure 2, the system comprises "means for

receiving multiple types of multimedia content at a central location” [110] and “means for formatting” [110] “the multimedia types of content into a broadband formal signal, the formatting means being coupled to the means for receiving the multiple types of content and to the network” (Para. [0032] – [0034]).

5. Claim 21 is rejected under 35 U.S.C. 102(e) as being anticipated by Fisk et al. (US Pub No. 2004/0172652 A1).

In consideration of claim 21, Figure 5 illustrates a “system” [10] “for providing multimedia content” over a “network” [40]. As illustrated in Figure 5, the system comprises “means for receiving multiple types of multimedia content at a central location” [56] and “means for formatting” [80] “the multimedia types of content into a broadband formal signal, the formatting means being coupled to the means for receiving the multiple types of content and to the network” (Para. [0127], [0159], [0166], [0235]).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to

point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-5 and 7-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Novak et al. (US Pub No. 2003/0126599) in view of common knowledge as supported by applicant's admitted prior art (APA).

In consideration of claim 1, Figure 1 of Novak et al. illustrates a “multimedia terminating device” [102] (Para. [0037]) for “providing multimedia content transmitted over a communication network” [101] and “received via a broadband connection” (Para. [0036] – [0039]). As illustrated in Figure 3, the “terminating device” [102] comprises “broadband communication circuitry for receiving multimedia content in a broadband format” [302] (Para. [0062]) and “decoder circuitry” [304/308/312] for “receiving content from the broadband communication circuitry, for decoding the content according to the type of content received and providing the decoded content to at least one user device” (ex. television [104] for audio/video, speaker [244] for audio) “based on the type of content” (Para. [0064]).

The reference, however, is silent with respect to the processing performed by the “broadband communication circuitry” in accordance with the usage of the disclosed DOCSIS signal transport such that it “extracts the content form the broadband format by stripping broadband protocol format information”. APA provides evidence of the fact that DOCSIS network interfaces or “broadband connection circuitry” [28] “extracts the content from the broadband format by stripping broadband protocol format information” so that the resulting

information is provided via a bus interface to the decoding system (APA: Figure 2; Page 8, Line 22 – Page 9, Line 6). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify the “broadband communication circuitry” [302] of Novak to “extract the content from the broadband format by stripping broadband protocol information” as known in the art for the purpose of doing so as necessary to implement a DOCSIS compatible signal transport/reception in an inexpensive manner through the use of typically utilized components.

Claim 2 is rejected wherein Novak et al. discloses that the “broadband communication circuitry includes cable modem circuitry” [302] (Para. [0062]).

Claim 3 is rejected wherein the “broadband format is DOCSIS” (Novak et al.: Para. [0062]).

Claim 4 is rejected wherein the “decoder circuitry” [304/308/312] includes a “digital signal processor” (Novak et al.: Para. [0069]).

Claim 5 is rejected wherein the “decoder circuitry” [304/308/312] includes a “graphics processor” (Novak et al.: Para. [0066]).

Claim 7 is rejected wherein Novak et al. discloses that the “decoder circuitry” [304/308/312] includes a “audio output” (Novak et al.: Para. [0066]).

Claim 8 is rejected wherein the “decoder circuitry” [304/308/312] includes a “video output” (Novak et al.: Para. [0066]).

In consideration of claims 9 and 10, the “decoder circuitry includes a digital data connection host for connecting an external digital device” or “hard drive” such as a PVR (Novak et al.: Para. [0067]).

In consideration of claim 11, as aforementioned, Figure 1 of Novak et al. illustrates a system for implementing a “method for transporting a digital multimedia content over a broadband network from a central location” [110] to “one or more subscribers” (Para. [0036] – [0037]). The method comprises “converting the digital multimedia content into a digital multimedia content signal at the central location, formatting the digital content signal into a broadband-transport-format signal, and transporting the broadband-formatted digital content signal towards the subscribers” in accordance with the formatting and distribution of a DOCSIS compatible signal to the receiving units. The subscriber unit [102] subsequently “receives the broadband-formatted digital content signal with broadband-communication circuitry” [302] (Para. [0062]), “decodes the digital multimedia content according to the type of content” (Para. [0064]) and “provides the digital multimedia content at one or more outputs according to content type” (Para. [0066] – [0067]).

The reference, however, is silent with respect to the processing performed in accordance with the usage of the disclosed DOCSIS signal transport such that it includes “extracting the digital multimedia content from the broadband-transport-format signal by stripping broadband protocol format information”. APA provides evidence of the fact that DOCSIS network interfaces to “extract . . . digital multimedia content form the broadband-transport-format signal by stripping broadband protocol format information” so that the resulting information is provided via a bus interface to the decoding system (APA: Figure 2; Page 8, Line 22 – Page 9, Line 6). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify the processing method of Novak so as to further “extract the digital multimedia content from the broadband-transport-

format signal by stripping broadband protocol format information” as known in the art for the purpose of doing so as necessary to implement a DOCSIS compatible signal transport/reception in an inexpensive manner through the use of typically utilized components.

Claim 12 is rejected wherein the “broadband-transport-format signal is a DOCSIS signal” (Novak et al.: Para. [0062]).

Claim 13 is rejected wherein Novak et al. discloses that the “broadband communication circuitry is cable modem circuitry” [302] (Novak et al.: Para. [0062]).

Claim 14 is rejected wherein “one of the outputs is a video output” (Novak et al.: Para. [0066]).

Claim 15 is rejected wherein “one of the outputs is an audio output” (Novak et al.: Para. [0066]).

Claim 16 is rejected wherein the “one of the outputs is a digital data host output” [310] (Novak et al.: Para. [0067]).

In consideration of claim 17, as aforementioned, the reference discloses the particular usage of DOCSIS (Novak et al.: Para [0062]). Accordingly, the limitation of “applying DOCSIS features to the broadband-transport-format signal to improve the transport thereof” is met in light of the DOCSIS implementation.

With respect to claim 18, APA provides evidence as to the common knowledge existence of a “Dynamic Service Flow MIB so as to reduce jitter” (IA: Page 10, Lines 4-6 and 9-17). Accordingly, it would have been obvious to one having ordinary skill in the art at the time

the invention was made to utilize “Dynamic Service Flow MIB so as to reduce jitter” in order to take advantage of standardized DOCIS features.

With respect to claim 19, APA provides evidence as to the common knowledge existence that DOCSIS provides for a “Dynamic Channel Change. . . to select a transport channel based on bandwidth needed for the type of content contained in the broadband-formatted digital content signal” (IA: Page 10, Line 18-25). Accordingly, it would have been obvious to one having ordinary skill art in the art at the time the invention was made so as to modify the “broadband communication circuitry” [302] so as to “apply” the particular usage of a “Dynamic Channel Change” for the purpose of noise avoidance or traffic balancing of requests.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Novak et al (US Pub No. 2003/0126599), in view of common knowledge as supported by applicant’s admitted prior art (APA), and in further view of Brooks et al (US Pat No. 6,816,940).

Regarding Claim 6, Novak shows that all of the circuitry is connected using a bus (fig. 3 item 314) and that MAC circuitry is used (page 2 section 0039, MAC address). Novak fails to specifically state that the bus connects a MAC of the broadband communication circuitry and a MAC of the decoder circuitry. Brooks shows that a bus connects a MAC of the broadband communication circuitry and a MAC of the decoder circuitry (fig. 2 items 224, 226, EMAC and CMAC, col. 7 lines 7-45, Ethernet MAC and Cable MAC connected by bus 214). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Novak with the ability of the communications MAC and decoder MAC to communicate through the bus, as shown in Brooks, so that the system

device could adequately communicate with each other and perform necessary data functions using cable modem circuitry which flexibly supports evolving standards without requiring expensive hardware upgrades (Brooks et al.: Col 2, Lines 58-65).

10. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Perlman (US Pat No. 6,813,643) in view of common knowledge as supported by applicant's admitted prior art (APA).

In consideration of claim 20, Figure 2C of the Perlman reference illustrates a "system for transmitting content over a broadband network". The reference teaches the particular distribution of MPEG encoded video content and other data through a DOCSIS only transmission scheme (Col 5, Lines 23-39) whereupon such signals are received and decoded for display. The reference, however, is silent with respect to commonly known components and functions associated with the implementation of a DOCSIS signal transport (Col 3, Lines 29-37). APA provides evidence of the fact that typical components found in a cable modem [28] for DOCSIS signal transport include a "means for stripping incoming content messages of DOCSIS format information so that the incoming content is left in encoded versions of its native format" [34] and a "media access controller coupled to the stripping means for receiving the content in the encoded version of its native format" [36] (APA: Figure 2; Page 8, Line 22 – Page 9, Line 6). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify the network interface so as to further utilize a "means for stripping . . ." and a "media access controller" for the purpose of doing as necessary to implement a DOCSIS compatible signal

transport/reception in an inexpensive manner through the use of typically utilized components.

As illustrated in Figure 2C of Perlman, the system further includes “means for decoding the incoming content into its native format coupled to the media access controller” [270] (Col 1, Lines 38-46) and “means for distributing” [251] “the decoded content in its native format from the decoding means to one or more of a plurality of output ports according to the native format type” such that MPEG decoded content is rendered on a television [135] or stored for later viewing [120].

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Beliveau whose telephone number is 571-272-7343. The examiner can normally be reached on Monday-Friday from 8:30 a.m. - 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Scott Beliveau
Primary Examiner
Art Unit 2623


SEB
September 2, 2006